

Scheduled experiments - Run 2024-I

February – June 2024

| Id | Title | Main Proposer | Proposer affiliation | Proposer affiliation country | Principal Investigator | PI affiliation | PI affiliation country | Instrument |
|-------------------|--|---------------------------|---|-------------------------------------|-------------------------------|---|-------------------------------|-------------------------------|
| 6922 (ex 3323) | LTP - Dynamics of nanoscale phenomena in solids and liquids studied with X-ray Transient Gratings at European XFEL (joint FXE/MID) | Dr. Cristian Svetina | IMDEA Nanociencia | Spain | Dr. Cristian Svetina | IMDEA Nanociencia | Spain | FXE SASE1 (Long-Term Project) |
| 5750 | Femtosecond-XES characterization of the spin-states and structures of transient iron(III)-oxyl species | Dr. Derek B Rice | Max Planck Institute for Chemical Energy Conversion | Germany | Prof. Dr. Serena DeBeer | Max Planck Institute for Chemical Energy Conversion | Germany | FXE SASE1 |
| 5713 | Laser-induced structural dynamics in ferroelectric thin films measured by X-ray standing waves | Dr. Giuseppe Mercurio | European XFEL GmbH | Germany | Dr. Giuseppe Mercurio | European XFEL GmbH | Germany | FXE SASE1 |
| 5698 | Mechanism of IR-control of charge-separation in metal complexes | Prof. Dr. Julia Weinstein | The University of Sheffield | United Kingdom | Prof. Dr. Julia Weinstein | The University of Sheffield | United Kingdom | FXE SASE1 |
| 5687 | Ferric oxalate photochemistry studies by simultaneous time-resolved iron X-ray Emission Spectroscopy and X-ray Raman Scattering | Dr. Frederico Alves Lima | European XFEL GmbH | Germany | Dr. Frederico Alves Lima | European XFEL GmbH | Germany | FXE SASE1 |
| 5686 | Capturing dynamics of polaron formation in hematite by x-ray absorption spectroscopy | Dr. Yohei Uemura | European XFEL GmbH | Germany | Dr. Yohei Uemura | European XFEL GmbH | Germany | FXE SASE1 |

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| 5436 | Implications of redox behavior of the Cu (II) binding sites in the physiological and pathological prion functions | Dr. María Eugenia Corrales Castellanos | Universidad Autónoma de Madrid (UAM) | Spain | Prof. Dr. Wojciech Gawelda | Universidad Autónoma de Madrid (UAM) | Spain | FXE SASE1 |
| 6116 | Relaxation dynamics and recombination rates of x-ray heated plasmas (derived from 3996) | Dr. Oliver Humphries | European XFEL GmbH | Germany | Dr. Oliver Humphries | European XFEL GmbH | Germany | HED SASE2 |
| 5758 | Polymorphic phase changes in silicon during loading and unloading in the dynamic diamond anvil cell | Dr. Minxue Tang | DESY Deutsches Elektronen-Synchrotron | Germany | Dr. Emma E McBride | Queen's University Belfast | United Kingdom | HED SASE2 |
| 5719 | A novel spectroscopic approach towards reconstructing the dielectric function in metals at extreme conditions | Dr. Ulf Zastra | European XFEL GmbH | Germany | Nodoka Hara | Università di Camerino | Italy | HED SASE2 |
| 5708 | HIBEF PA - XPCI in the DAC: Visualization of Phase Transformations at Extreme Pressures and Temperatures with High Spatial and Temporal Resolution | Dr. Rachel J Husband | DESY Deutsches Elektronen-Synchrotron | Germany | Dr. Rachel J Husband | DESY Deutsches Elektronen-Synchrotron | Germany | HED SASE2 / HIBEF Priority Access |
| 5700 | Solid phases of metals under high pressure and temperature – looking for the bcc phase | Prof. Dr. Agnès DEWAELE | Commissariat a L'Energie Atomique (CEA) | France | Prof. Dr. Sébastien Merkel | Université de Lille, CNRS | France | HED SASE2 |
| 5690 | Characterizing solid density plasmas relevant to white dwarf envelopes | Prof. Dr. Dominik Kraus | Universität Rostock | Germany | Prof. Dr. Dominik Kraus | Universität Rostock | Germany | HED SASE2 |
| 5689 | HIBEF PA - Generation of extreme pressure states with cylindrical imploding wires | PD Dr. Toma Toncian | Helmholtz-Zentrum Dresden-Rossendorf (HZDR) | Germany | Dr. Alejandro Laso Garcia | Helmholtz-Zentrum Dresden-Rossendorf (HZDR) | Germany | HED SASE2 / HIBEF Priority Access |

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| 5685 | Kinetics and dynamics of nitride formation at extreme P-T conditions | Dr. Alexander F Goncharov | Universität zu Köln | Germany | Dr. Maxim Bykov | Universität zu Köln | Germany | HED SASE2 |
| 5640 | Evolution of Structure, Bonding and Properties across Kinetic Controlled Transformations of Dense Nitrogen using Dynamic-DAC and MHz X-ray Diffraction at European XFEL | Dr. Daniel Sneed | Lawrence Livermore National Lab. LLNL | United States | Prof. Dr. Choong-Shik YOO | Washington State University | United States | HED SASE2 |
| 5619 | Effect of pressure and composition on diamond precipitation dynamics in statically compressed X-ray heated hydrocarbons | Dr. Mungo Frost | Stanford University | United States | Prof. Dr. Siegfried H Glenzer | SLAC National Accelerator Laboratory | United States | HED SASE2 |
| 5438 | HIBEF PA - Towards Quantum Vacuum Birefringence using an X-ray Dark-field Technique | Dr. Michal Smid | Helmholtz-Zentrum Dresden-Rossendorf (HZDR) | Germany | Prof. Dr. Thomas E Cowan | Helmholtz-Zentrum Dresden-Rossendorf (HZDR) | Germany | HED SASE2 / HIBEF Priority Access |
| 6156 | Excitation of Magnetic Domains in Sr ₂ IrO ₄ (derived from 3331) | Prof. Dr. Ian Robinson | University College London (UCL) | United Kingdom | Prof. Dr. Ian Robinson | University College London (UCL) | United Kingdom | MID SASE2 (compensation) |
| 5762 | Time-dependent measurements of carbon nanoparticle inception | Dr. Andrea Comandini | CNRS, Orléans | France | Dr. Andrea Comandini | CNRS, Orléans | France | MID SASE2 |
| 5747 | Time-resolved amyloid-beta aggregation | Dr. Felix Lehmkuhler | DESY Deutsches Elektronen-Synchrotron | Germany | Dr. Florian Schulz | University of Hamburg (UHH) | Germany | MID SASE2 |
| 5733 | Electric-field-driven Reconfiguration of the Energetic Landscape of a Charge Density Wave Material | Dr. Yue Cao | Argonne National Laboratory (ANL) | United States | Dr. Yue Cao | Argonne National Laboratory (ANL) | United States | MID SASE2 |
| 5721 | Observation of charge transfer in sliding charge density wave system in a quasi-2D material | Mrs. Darine Ghoneim | Université Paris-Saclay | France | Mrs. Darine Ghoneim | Université Paris-Saclay | France | MID SASE2 |

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| 5536 | Magnetic dynamics and metamagnetic transition in Sr2IrO4 epitaxial films: Towards optimised spintronics based on nanoscale complex oxides: | Dr. Danny Mannix | European Spallation Source ERIC | Sweden | Dr. Danny Mannix | European Spallation Source ERIC | Sweden | MID SASE2 |
| 4977 | Imaging of ultrafast melting, melt front and shock wave propagation in bulk crystalline semiconductors by Ultrafast Dynamical Diffraction | Dr. Angel Rodriguez Fernandez | European XFEL GmbH | Germany | Prof. Dr. Jan Siegel | Consejo Superior de Investigaciones Científicas (CSIC) | Spain | MID SASE2 |
| 6996 (ex 3348) | MHz XPCS enabled studies of dynamics, interactions and aggregation phenomena in protein solutions | Prof. Dr. Christian Gutt | Universität Siegen | Germany | Prof. Dr. Christian Gutt | Universität Siegen | Germany | MID SASE2 (Long-Term Project) |
| 5746 | Studying the sulfur-related UV-photodamage in crystallin | Ms. Jessica Harich | University of Hamburg (UHH) | Germany | Prof. Dr. Nils Huse | University of Hamburg (UHH) | Germany | SCS SASE3 |
| 5709 | Enabling synthetic control of intersystem crossing dynamics in photoluminescent chromium complexes | Dr. Benjamin E van Kuiken | European XFEL GmbH | Germany | Dr. Benjamin E van Kuiken | European XFEL GmbH | Germany | SCS202401 |
| 5701 | Polarized femtosecond time-resolved electronic structure of aqueous solutions of vitamin B12 | Prof. Dr. James E Penner-Hahn | University of Michigan | United States | Prof. Dr. James E Penner-Hahn | University of Michigan | United States | SCS202401 |
| 5697 | Formation of Laser-Induced Periodic Surface Structures studied by time-resolved small angle X-ray scattering | Prof. Dr. Klaus Sokolowski-Tinten | Universität Duisburg-Essen (UDE) | Germany | Prof. Dr. Klaus Sokolowski-Tinten | Universität Duisburg-Essen (UDE) | Germany | SCS202401 |
| 5576 | Temperature diagnostics and ultrafast ionization dynamics of XFEL-created warm dense aluminum | Dr. Laurent Mercadier | European XFEL GmbH | Germany | Dr. Laurent Mercadier | European XFEL GmbH | Germany | SCS202401 |

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| 5497 | The mechanism of triplet energy transfer in free base porphyrins | Dr. Sebastian Eckert | Helmholtz-Zentrum Berlin für Materialien und Energie GmbH (HZB) | Germany | Prof. Dr. Alexander Foehlich | Universität Potsdam | Germany | SCS202401 |
| 5496 | Dynamics of electron solvation in aqueous systems | Dr. Shuai Li | Argonne National Laboratory (ANL) | United States | Prof. Dr. Linda Young | Argonne National Laboratory (ANL) | United States | SCS202401 |
| 5761 | In-situ Study of Ligand Binding Mechanisms of the Adenosine A2A Receptor with LCP Mixing System – A Newly Validated Drug Target for Immuno-oncology | Dr. Chan Kim | European XFEL GmbH | Germany | Dr. Tian Geng | Sosei Heptares Ltd. | United Kingdom | SPB202401 |
| 5760 | Femtosecond time-resolved crystallography of optogenetic tools at European XFEL | Prof. Dr. Valentin Gordeliy | Forschungszentrum Jülich | Germany | Dr. Kirill Kovalev | European Molecular Biology Laboratory (EMBL) | Germany | SPB202401 |
| 5741 | Intrinsically disordered proteins – structural ensembles and oligomerization | Prof. Dr. Marie Skepö | Lund University | Sweden | Prof. Dr. Marie Skepö | Lund University | Sweden | SPB202401 |
| 5682 | Dynamic re-shaping of single Au nanorods in colloidal suspension observed with ultrafast coherent diffractive imaging | Prof. Dr. Wojciech Gawelda | Universidad Autónoma de Madrid (UAM) | Spain | Prof. Dr. Wojciech Gawelda | Universidad Autónoma de Madrid (UAM) | Spain | SPB202401 |
| 5681 | Nanofocus time-resolved serial fs crystallography of the electron transfer in Photosystem I utilizing fs optical laser excitation | Prof. Dr. Petra Fromme | Arizona State University (ASU) | United States | Prof. Dr. Petra Fromme | Arizona State University (ASU) | United States | SPB202401 |
| 5641 | Viral and Cancer targets investigated by serial fs crystallography with viscous injection at the EuXFEL | Prof. Dr. Uwe Weierstall | Arizona State University (ASU) | United States | Prof. Dr. Uwe Weierstall | Arizona State University (ASU) | United States | SPB202401 |

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| 5476 | Single particle incoherent diffractive imaging | Dr. Kartik Ayyer | Max-Planck-Institut (MPI) für Struktur und Dynamik der Materie (MSPD) | Germany | Dr. Kartik Ayyer | Max-Planck-Institut (MPI) für Struktur und Dynamik der Materie (MSPD) | Germany | SPB202401 |
| 5376 | Single-particle X-ray imaging of biomolecules in solution at high repetition rate | Dr. Patrick Konold | Uppsala University - UU | Sweden | Dr. Patrick Konold | Uppsala University - UU | Sweden | SPB202401 |
| 5157 | Megahertz imaging of liquid-bubble-particle multi-time scale interaction dynamics in ultrasonic fields | Prof. Dr. Jiawei Mi | University of Hull | United Kingdom | Prof. Dr. Jiawei Mi | University of Hull | United Kingdom | SPB202401 |
| 5660 | Preparing for time-resolved mixing studies of Pdx1 | Mr. Jack R Stubbs | Diamond Light Source Ltd | United Kingdom | Dr. Allen M. Orville | Diamond Light Source Ltd | United Kingdom | SPB202402 |
| 5659 | JINXED: In the footsteps of protein crystal nucleation | Alessandra Henkel | DESY Deutsches Elektronen-Synchrotron | Germany | Dr. Dominik Oberthür | DESY Deutsches Elektronen-Synchrotron | Germany | SPB202402 |
| 5643 | Testing ionic liquids as inert delivery media for SFX | Dr. Connie Darmanin | La Trobe University | Australia | Dr. Connie Darmanin | La Trobe University | Australia | SPB202402 |
| 5596 | Detergent screening of Photosystem II micro-crystals | Dr. Jay-How Yang | Arizona State University (ASU) | United States | Dr. Jay-How Yang | Arizona State University (ASU) | United States | SPB202402 |
| 5498 | Optimizing crystal quality of Photosystem II dehydrated micro-crystals | Dr. Jay-How Yang | Arizona State University (ASU) | United States | Dr. Jay-How Yang | Arizona State University (ASU) | United States | SPB202402 |
| 5458 | Initial structural studies on flavoproteins from the photosynthetic cyanobacteria Anabaena and the pathogen Brucella ovis at EuXFEL | Dr. Jose Manuel Martin Garcia | Consejo Superior de Investigaciones Científicas (CSIC) | Spain | Prof. Dr. Milagros Medina | Universidad de Zaragoza | Spain | SPB202402 |
| 5731 | Lifetime Determination of Key Astrophysical Transitions in Fe XVII Using Two-color X-ray Pump-probe Technique | Dr. Chintan Shah | NASA Goddard Space Flight Center | United States | Dr. Thomas M Baumann | European XFEL GmbH | Germany | SQS202401 |

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| 5729 | Mapping out the UV-induced dissociation of water molecules and hydroxyl radical formation in real time | Dr. Aaron C LaForge | University of Connecticut | United States | Dr. Aaron C LaForge | University of Connecticut | United States | SQS202401 |
| 5696 | Mapping charge transfer mediated by rotational dynamics | Dr. Björn Senfftleben | European XFEL GmbH | Germany | Dr. Björn Senfftleben | European XFEL GmbH | Germany | SQS202401 |
| 5688 | Monitoring Gas-Phase Photoproduct Formation with Multiple Site Probing with TR-XAS at the O K-edge | Dr. Rebecca A Ingle | University College London (UCL) | United Kingdom | Dr. Rebecca A Ingle | University College London (UCL) | United Kingdom | SQS202401 |
| 5680 | Imaging the Ultrafast Photochemistry of a Prototypical Carbonyl | Dr. Alice E Green | European XFEL GmbH | Germany | Dr. Thomas Wolf | Stanford University and SLAC National Accelerator Laboratory | United States | SQS202401 |
| 5748 | Investigation of atomic site-specific electron dynamics in photo-catalytically reactive ternary quantum dot sensitized TiO ₂ systems | Dr. Friedrich Roth | TU Bergakademie Freiberg | Germany | Dr. Friedrich Roth | TU Bergakademie Freiberg | Germany | SXP202401 |
| 5735 | The complete interface molecular movie: One-stop imaging of electronic and structural dynamics | Dr. Markus Scholz | DESY Deutsches Elektronen-Synchrotron | Germany | Dr. Markus Scholz | DESY Deutsches Elektronen-Synchrotron | Germany | SXP202401 |